MARITIME SECURITY REGIME CONCEPT

"A GLOBAL APPROACH TO REGIONAL CHALLENGES"

The unhindered ability to utilize the Maritime Domain is essential to a healthy global economy and is vital to the strategic security interests of all nations.

1. REPORT DATE **08 JUL 2013**	2. REPORT TYPE **N/A**	3. DATES COVERED

4. TITLE AND SUBTITLE **Multinational Experiment 7: Outcome 1: Maritime Security Regime Concept 27 September 2012**	5a. CONTRACT NUMBER
	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **JOINT STAFF-MN//ACT Integration 116 Lakeview Parkway Suffolk, VA 23435**	8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release, distribution unlimited.

13. SUPPLEMENTARY NOTES
The original document contains color images.

14. ABSTRACT
The unhindered ability to utilize the Maritime Domain is essential to a healthy global economy and is vital to the strategic security interests of all nations. Loss of access to this significant global supply chain that connects nations, people, markets and manufacturers around the world quickly expands to impact all nations. Direct threats to ensured maritime access include disruption of commerce, interference with the lawful use of the Maritime Domain, and transnational crimes such as piracy and terrorism. Illicit trafficking (weapons, drugs, money, humans or other contraband) may also impact maritime access. Natural phenomena such as severe weather, ice or geological disasters may limit access. Since these threats and events can be expected to continue it would be prudent to prepare for a future where the impact of a variety of access challenges could be prevented, mitigated or resolved. Though some nations have robust capabilities, no single nation can ensure access for the global community at large.

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT **unclassified**	b. ABSTRACT **unclassified**	c. THIS PAGE **unclassified**	**UU**	**39**	

Maritime Security Regime Concept

Maritime Security Regime Concept

27 September 2012

Distribution:

Germany

Finland

Great Britain

Italy

NATO

Norway

Poland

Sweden

United States

Major Supporting Organizations:

COE CSW

CJOS COE

1

Executive Summary

Maritime Security Regime Concept

"A Global Approach to Regional Challenges"

The Maritime Challenge

The unhindered ability to utilize the Maritime Domain is essential to a healthy global economy and is vital to the strategic security interests of all nations. Loss of access to this significant global supply chain that connects nations, people, markets and manufacturers around the world quickly expands to impact all nations.

Direct threats to ensured maritime access include disruption of commerce, interference with the lawful use of the Maritime Domain, and transnational crimes such as piracy and terrorism. Illicit trafficking (weapons, drugs, money, humans or other contraband) may also impact maritime access. Natural phenomena such as severe weather, ice or geological disasters may limit access. Since these threats and events can be expected to continue it would be prudent to prepare for a future where the impact of a variety of access challenges could be prevented, mitigated or resolved. Though some nations have robust capabilities, no single nation can ensure access for the global community at large.

The complexity and uncertainty facing the nations of each unique maritime region are compounded by the problems and opportunities of cyber, air, and space domain interdependencies and regional relationships. The interdependence with other domains is evident in that the physical flow in the Maritime Domain is coupled with the information flow in cyberspace, a physical connection to the air domain, and the reliance on space assets for navigation and communication.

Today's MSR Abilities

Maritime Security Regime (MSR) is the term used to describe a group of states and/or organizations acting together, with an agreed upon framework of rules and procedures, to ensure security within the maritime environment.[1] Today there are dozens of MSRs that exist in many forms. They have widely differing abilities to gain maritime situational awareness and analyze access threats as well as address or resolve their regional access challenges. Regional partners are sometimes not able to respond adequately or in a timely manner. Fortunately a MSR's underlying strength is its members' inherent awareness of the unique culture and associated challenges of their region.

---

[1] A regime can be broadly defined as a set of explicit or implicit "principles, norms, rules and decision-making procedures around which actor expectations converge in a given issue-area." Krasner, Stephen D. (ed.) 1983. International Regimes, Ithaca, NY: Cornell University Press. Page 1.

This Concept was developed as an outgrowth of Multinational Experiment 7 (MNE 7).[2] As observed during development of this Concept, MSRs often meet their regional access challenges independently without seeking assistance from other MSRs or domain experts. An underlying insight of the Concept is that the global linking of MSRs to other regions and other domains can enhance the ability of the MSR to mitigate their own regional access challenges. Specific evidence of the need for linking MSRs includes: (1) Current MSR case studies[3] that suggest common agendas between MSRs are likely occurrences; (2) Threats to the flow of commerce that span many regions; (3) Shipping organization operations that are global, cutting across regions, and are largely cyberspace dependent; and (4) the interdomain[4] use of cyberspace and space by noncompliant actors that may adversely impact an MSRs' interests. While a regional approach to MSR problems is sound, it is clear that the nature of maritime access challenges is potentially global in scope and impact. This calls for a global and agile framework that is designed to support regional challenges.

Improving the existing MSR's ability to address regional maritime access challenges is the essential measure of success. Two inherent MSR functions are required to ensure access and freedom of maneuver: an ability to *assess* and understand regional access challenges in the complex environment and the ability to implement a comprehensive MSR *response* including influencing stakeholder action. Most previous work focused on a specific access challenge or a specific region and often with a landward view from the sea. This concept takes a broader view.

Central Idea - "A Global Enterprise Response to Regional MSR Challenges"

The Central Idea of this concept is a dual approach to strengthen MSRs:

- **First, the creation of a Maritime Security Regime Enterprise[5] as an entity that offers sustained support to encourage and facilitate collaboration between MSRs and**

---

[2] Multinational Experiment 7 is a two-year multinational and interagency concept development and experimentation (CD&E) effort to improve coalition capabilities to ensure access to and freedom of action within the Global Commons domains (Air, Maritime, Space and Cyberspace).

[3] Case studies were conducted on several MRSs with differing abilities. Abstracts can be found in the accompanying Manual Appendix 2.

[4] Interdomain is literally between domains. Domain interrelationships apply to the use of interdomain in this concept: "The important conceptual point is based upon the fact that operational interrelationships across the geographies of space, air, maritime, and cyber are growing in scope and complexity." Global Commons and Domain Interrelationships: Time for a New Conceptual Framework by Mark E. Redden and Michael P. Hughes, National Defense University Strategic Forum, Nov 2010. Page 2.

[5] An enterprise is a cooperative project undertaken, especially one that is important or difficult that requires boldness or energy. The term "enterprise" was first used to describe this construct during Multinational Experiment 5: Cooperative Implementation Planning, Management and Evaluation Concept in October 2008. It is also often led by a business organization. (http://dictionary.reference.com/browse/enterprise) The term Enterprise is descriptive term and does not prescribe a naming convention. MSRs themselves should name it during initial meetings.

improved ability to access information, best practices, and expertise from beyond their own regions to resolve access challenges to the Maritime Domain.

- **The second, complementary approach of the concept, directly enhances MSRs, emphasizing collaboration in a global approach to regional challenges. It implements a program that provides procedures, principles and best practices to directly enhance MSR awareness, assessment and response capabilities.**

Successful Maritime Security Regime Enterprise (hereafter referred to as the Enterprise) and, in particular, MSR operations and collaboration also depend on several underlying principles. Key among them is the principle of building member mutual confidence and cohesion. Important to building confidence is employing a series of small group activities or goals that will in themselves create confidence. Cohesion is fostered by another principle based on establishing individual and mutual stakeholder benefit. Willingness to participate in a MSR depends on establishing benefit to the stakeholders.

Dual Approach Solution Set

The Concept presents a range of solutions that are grouped by the dual approach as either Enterprise solutions or Direct MSR solutions. There are also several solutions that underlie both the Enterprise and MSRs. These solutions can be tailored to the region and employ coordinated global support, incorporating the inter-regional and interdomain resources and assistance. Because a MSR has the most articulate understanding of the unique local maritime access challenges and responses, the Concept emphasizes that the MSRs can best select potential solutions for their specific access challenge.

The Enterprise Solutions

The proposed global Enterprise supports regional MSRs. To manage complexity and potential surprises in the maritime operating environment the Enterprise that is global, agile and adaptive is proposed to assist MSRs in responding to and mitigating regional maritime access challenges.

Key to MSR support by the Enterprise is five complementary functions (not to be confused with MSR functions described elsewhere). These functions are external to the MSR and provide: (1) Net enabled collaboration of the MSRs, (2) MSR library of best practices, lessons learned, and procedures, (3) Global Assessment to enhance MSR awareness (4) Shared expertise, and (5) Capacity building to promote MSR enhancement.

It is important to recognize that the Enterprise does not have a governance function and would not direct or restrict regional MSR operations.

Direct MSR Solutions

Direct MSR solutions should create or enhance MSR capability to ensure access and freedom of maneuver.

Consider the type of MSR roles and its organization. The MSRs will generally perform two primary roles under leadership: *assessment* (supporting improved awareness) and *response*. The type of specific organization selected by a MSR will vary with the degree of access challenge. If the challenge is at the high end of the maritime challenge scale (perhaps high value shipping that is also vulnerable), the MSR could address both assessment and response functions utilizing an appointed leader and a staff. However, at the low end of the access challenge scale (for example, low threat with low vulnerability assets), leadership and supporting tasks could be executed separately in a federated manner.

MSR assessment functions are not just information and knowledge activities that narrowly focus on problems or noncompliant actors in the region. The assessment function looks for implications that may act as a trip wire to impending maritime challenges

To achieve maritime security, MSRs require the capacity to respond to convince noncompliant actors to comply or, if necessary, to enforce compliance. At times, nonregional stakeholder capabilities will be needed to respond or address maritime access challenges and opportunities.

The Concept emphasizes that cooperation between regional MSRs is often vital to assure access and security. This improved ability can be accomplished directly by a MSR developing a collaborative framework using its own initiative or it can be facilitated by the Enterprise.

The Concept's solutions explore how MSR success is further enhanced when it is complimented by the capabilities of the other domains of the global commons (space, cyber and air). The solutions explored in this Concept are further detailed in the "Enterprise Implementation Proposal and MSR Manual" (hereafter referred to as the MSR Manual).

All nations share a common interest in ensuring access to the Maritime Domain. The Enterprise approach presented in this Concept is a critical step in institutionalizing the ability for stakeholders to build or enhance MSRs.

With Enterprise support, the MSR functions of inter-regional collaboration and interdomain interaction become feasible. Additionally, by supporting an educational program, the Enterprise enables the training effort that provides procedures, principles, and best practices that support MSRs success.

Table of Contents

Figures

I.   Introduction

Background

This concept was developed as an outcome of Multinational Experiment 7. As observed during development of this Concept, MSRs often meet their regional access challenges independently without seeking assistance from other MSRs or domain experts. An underlying insight of the Concept is that the global linking of MSRs to other regions and other domains can enhance the ability of the MSR to mitigate access challenges.

The majority of global commerce is shipped by sea. All coastal nations and even many noncoastal states rely on maritime shipping for their critical resource needs. The unhindered ability to operate within the Maritime Domain is essential to a healthy global economy and is vital to the strategic security interests of all nations. In global commerce, the maritime domain is a vital part of the supply chain[6]. Loss of access to these global highways connecting nations, people, markets and manufacturers around the world would have a significant adverse impact on nations. The challenges to unfettered access to the global maritime commons are increasing.

> The Maritime Domain of the Global Commons for the purpose of the Concept consists of all sea areas within which every nation has freedom of access and action in accordance with international law (treaty and customary law).

The technologies for exploitation of maritime resources on and under the seabed have improved significantly so that today many nations claim interests in these resources even far from their own coastlines. These claims often overlap, leading to disputes.

In the last decade the challenge of piracy has reemerged in a new form where ships are no longer taken for their cargo but for ransom. Crews are taken hostage and the enormous sums are demanded for their release. The costs of insurance, ransoms, loss of use of seized ships, added security, and rerouting around hazardous areas, as well as the danger to mariners, all impact access to the maritime global common and contribute to safety at sea and increasing the overall cost of goods.

Even though actions within the Maritime Domain are extensively regulated, some nations differ in their interpretation of these regulations and levels of enforcement vary by region. These differences run the gamut of disagreements between nations over territorial jurisdiction, the right to conduct customs inspections, collection of fees, and even the definitions of Inland Passageways and what constitutes Innocent Passage[7]. Often these differences are adjudicated

---

[6] Supply Chain construct traces the flow or chain of friendly or illicit challenges to maritime access from its source through appropriate MSR regions to the market for the trade on activity.

[7] Innocent Passage: Ships of all states, whether coastal or landlocked, enjoy the right of innocent passage through the territorial sea. Passage is innocent so long as it is not prejudicial to the peace, good order or security of the

peaceably. However, disagreements sometimes lead to actions or threats that impede ensured access through the supply chain. Direct threats to ensured access include disruption of commerce movement and interference with the lawful harvesting of marine resources, as well as transnational crimes such as piracy and terrorism. Depending on the policies of the nations in a region, illicit trafficking (weapons, drugs, money, humans, or other contraband) may also impact maritime access. In addition, natural phenomena, such as severe weather or ice, may limit access in the Maritime Domain.

Today, achieving access to the Maritime Domain is increasingly part of a larger and more comprehensive issue: it is interdependent with and relies on access to other domains of the Global Commons, such as air, space and cyberspace (termed interdomain in the Concept). Actions to ensure access in the Maritime Domain must account for these interdomain relationships. Consider one of many examples; the global economic system and national strategic security is critically dependent on the security of container sea transportation and what is most vital and at risk is its supporting cyber network. Surprisingly, many that utilize the global commons do not seem to be aware of the dependency of shipping container automation on the supporting information backbone[8], nor are many of them willing or able to ensure its security.

The impact of limiting access includes increased costs associated with restrictions on the free flow of commerce, increased risks to life and property, and interference with the lawful harvesting of natural resources.

Although some nations may have the capability, capacity and most importantly, the will, to address specific threats, no single nation can ensure freedom of movement for the global community at large. The collective efforts of nations and organizations are needed to counter access threats in the Maritime Domain. This suggests an endeavor or undertaking of some scope–forming new, and enhancing existing, MSRs by linking them together in a global Maritime Security Enterprise.

> A **Maritime Security Regime** is a group of states and/or organizations acting together, with an agreed upon framework of rules and procedures, to ensure security within the maritime domain.

The MSR Manual, developed as a follow on to this concept, provides additional detail and offers a context that supports the establishment of the Maritime Security Enterprise to support MSRs. It also presents a selection of case studies regarding maritime security initiatives around the globe that are used to support the development of best practices.

---

coastal state. It shall take place in conformity with UNCLOS and other rules of international law. (UNCLOS Part II, Articles 17-19)

[8] Persistent space and cyber systems that are part of the interdomain have become increasingly important contributors to situational awareness. See MSR Manual for further discussion.

II. Purpose of the MSR Concept

The fundamental goal of the Concept is to enhance a MSR's ability to assess and respond to regional maritime challenges using a dual approach to support MSRs either directly or by employing a more global solution through Enterprise support.

The Concept is intended to accomplish the following:

- Describe the nature of the access challenges and their implications for MSR capabilities.

- Identify the key capabilities that MSRs require to ensure maritime access.

- Present principles for successful MSR establishment or enhancement and sustainment, including best practices derived from existing MSR case studies.

- Provide new ideas that stretch our current capabilities to more global solutions.

- Offer a flexible menu of MSR solutions to improve Maritime Domain access.

This concept has three potential audiences. First, it is written to give executive level decision makers in national governments and organizations a thorough basis for a decision to build, join, or enhance existing MSRs. Second, it is directed towards the existing MSRs and their leadership with the intention of offering them a construct to improve the performance of their MSR through collaboration with other MSRs in a global Maritime Security Enterprise. A third important group includes international and commercial organizations who are interested in the Enterprise development and who should be engaged in the development of MSRs and the Enterprise.

III. Scope of the MSR Concept

The Concept recognizes that many regional challenges may have global implications and that MSRs may seek global support for solutions such as those offered by the Concept.

Maritime Security is an international and interagency, civil and military (generally in a supporting role) activity to prevent or mitigate the risks and, when necessary, respond and counter the threat of illegal or threatening activities in the Maritime Domain. While this Concept concentrates on the access threat of unlawful use of the Maritime Domain, it also addresses the potential for MSR's to respond to natural disasters or incidents and their consequences as members deem fit to do so.

Other items that scope and shape the Concept include:

- **Policy.** It is a fundamental assertion of the Concept that it does not prescribe how a MSR should select or address membership criteria.

9

- **Context.** The Concept addresses access within established international norms and standards in both the current and potential future operating environments, characterized by uncertainty, complexity, globalization, and rapid change.

- **Procedural Scope.** The Concept explores access challenges, the central idea, and possible solutions that support implementing the central idea. The MSR Manual provides an Enterprise Implementation Proposal as well as more specific procedures for MSR stand-up and sustained enhancement in an Enterprise supported framework.

- **A Collaboration Construct.** The Concept explores the global commons' problem space and suggests a construct that will facilitate the cooperation of existing MSRs to enhance maritime security.

- **Time Horizon.** The Concept addresses the future of MSRs but does not set a specific timeframe.

- **International Law.** The existing international legal framework (agreements, treaties, and laws) is considered fixed for the purposes of the Concept. However, research into these frameworks may result in recommendations for policy changes and perhaps considerations for modifications to current law. It should be noted that with consensus, laws can quickly be changed or altered to meet the needs of compliant actors; however, gaining consensus among multiple state entities may prove difficult and could demand considerable effort.

IV. Nature of the Problem and MSR Implications

Real-world events that restrict access to the Maritime Domain are occurring regularly across the globe, including unilateral assertion of national sovereignty, piracy, terrorism, and illicit trafficking, as well as natural disasters. These events can be expected to continue with potentially adverse consequences. Therefore, it is prudent to prepare for a future in which some nations, transnational or nonstate actors, or other events increasingly restrict freedom of maneuver within or restrict lawful access to the Maritime Domain.

External Challenges. The Concept first identifies external environmental and threat challenges to access in the Maritime Domain and presents associated implications for each that shape the Concept's central idea, supporting principles and solution menu. The Manual specifically addresses these challenges and offers new solutions to take advantage of the associated implications.

- **Uniqueness and Uncertainty.** The maritime environment is dynamic and complex and uncertainties abound. The variety of national interests and regional interactions make each

10

situation unique; there is no "one size fits all" framework. Also included are unpredictable natural phenomena such as a tsunamis or manmade incidents that may trigger a MSR response. Inter-regional connections and interdomain relationships (space and cyberspace in particular) further complicate the situation. Regimes also face threats of similar complexity where noncompliant actors are increasingly using cyber capabilities (tracking and monitoring) to target commercial shipping.

> ***Implication.*** The *MSR response to the variety of challenges must be agile and adaptive. Fundamentally, national interests and regional interactions can create a level of uncertainty that makes assessing the Maritime Domain an ongoing challenge suggesting persistent or iterative reviews that may include a more global view. Within the constraints of national or organizational requirements, MSRs should share a persistent awareness and capability[9] to mitigate the uncertainty inherent in complex situations. This collective examination is a crucial first step to evolving a shared understanding of the problem and is a prerequisite for collaborative action by nations and other organizations.*

- **Information Access.** Many communities and regions cannot access vital maritime security information, such as shipping activity, even though the technology to gather this information is readily available. Also regions too often operate unaware of other similar or supportive activity globally.

> ***Implication.*** *The flow of maritime information in the cyber domain is based on ready access to existing, maritime information, which for many users is unavailable, due to lack of technology, affordability of access, or unwillingness to share information. To address this challenge, an approach or means to access maritime information for all participants in the maritime domain is needed. This information should be related to maritime security first, but could be extended to MSR best practices and to the management of MSRs.*

- **Pervasive Connectivity.** An increasingly networked society presents both challenges and opportunities. The near-instantaneous transfer of information can inform potential adversaries of MSR capabilities and activities while the narrative[10] (the story that is told after the event) about those events may be used to shape false perceptions about the events themselves.

> ***Implication.*** *The flow of information in the cyber domain provides powerful opportunities and challenges for the nations in the region. It should be utilized to better*

---

[9] Capability: The entirety of a system that delivers an output or effect. It will most likely be a complex combination of Doctrine, Organization, Training, Materiel, Leadership development, Personnel, Facilities and Interoperability (DOTMLPFI) to deliver the required output. *NATO: MC0550 – MC Guidance for the Military Implementation of the Comprehensive Political Guidance, 6 June 2006*

[10] See Controlling the Narrative section in NATO MULTIPLE FUTURES PROJECT – Navigating towards 2030.

exchange maritime security related information on a global scale. Noncompliant actors may possess surprising situational awareness and cyber capabilities. Perhaps as important, the narrative in the cyber domain must not be allowed to be dominated by noncompliant nations or actors, further complicating MSR response and success.

- **Diffusion of Technology.** The ability of noncompliant actors to obtain technologies, including space and cyber capabilities, will further enable them to challenge maritime access.

    Implication. A MSR's success will be increasingly challenged by noncompliant actors utilizing multiple domains adding additional risk to MSRs success. This will require MSRs to enhance their own technologies to enhance their own capabilities and counter those of noncompliant actors.

- **Use of Cyber, Air and Space Domains to Counter Challenges in the Maritime Domain by Noncompliant Actors.** The use of these domains by noncompliant actors is increasing. To counter this, MSRs must develop the capability to protect and use these domains as well. Also important is the MSR opportunity to selectively compliment actions in one domain by action in another and to combine them at the optimum time and manner. It is a global application of all domain capabilities to regional maritime access problems. For example MSR enforcement could be led by cyber actions timed to thwart or reduce the disruptive impact of noncompliant actions.

    Implication. MSR assessments and responses must be aware of and able to utilize interdomain capabilities to increase the scope and capacity of MSR activity. Proposed solutions and global frameworks should assist the MSRs in obtaining this capability.

- **Noncompliant National and Transnational Challenges.** Rising powers in a multipolar world, empowered by their thriving economies or driven by competition for increasingly scarce resources, will assert national influence to garner greater control over portions of the Maritime Domain or to make territorial claims that may run counter to international laws, norms and practices.

    Implication. MSRs must be capable of taking group action of sufficient size and strength to counter the actions of a noncompliant actor and where necessary seek the support of other MSRs.

- **Stability Ashore Impacts Stability at Sea.** Interconnectivity or spillover between the land and sea domains is pervasive, particularly in regions endowed with offshore resources such as oil, fishing or minerals. Non-compliance challenges emanate from the shore. For example, instability stemming from lack of governance and widespread poverty sets the conditions in which piracy can thrive. Both the threat and actual practice of piracy have profound impacts on access to the Maritime Domain.

Implication. MSRs can react to access challenges at sea, but their actions are also intertwined with events ashore. Noncompliant actors will use shore-based capabilities to complicate MSR activities and intentions. Fostering national stability is not a MSR responsibility but stability may lie at the heart of solving many access challenges, especially from nonstate actors. An enterprise approach could perform an advocacy function to build international consensus to address the instability ashore.

- **Resource Competition.** Population growth combined with a demographic shift to urban and coastal environments will increasingly stress declining global water, food and energy resources. Competition for resources, particularly food and energy, may cause nations to abandon or question their compliance with international law, practices and norms that ensure access to the Maritime Domain.

    Implication. Formerly compliant nations may become noncompliant to ensure the welfare of their populations. This will stress regional relationships and could lead to the need for an establishment of a MSR. Also the situation could lead to the degradation or breakup of existing MSRs. To minimize this impact, MSRs must clearly identify these challenges, assess them at an early point and undertake preventative measures. An enterprise could seek international support to address resource requirements of regional MSR members.

Internal Challenges. In addition to external challenges, there are challenges that are internal to the MSR itself.

- **Independent Operation of Existing MSRs.** Too often MSR activities are conducted in regional isolation from other regions and MSRs fail to take advantage of support from other domains, such as space and cyber.

    Implication. There is limited support available to existing MSRs and there is a hazard of them operating independently against increasingly sophisticated challenges that emanate from global challenges. Therefore, without interfering with the individual MSR's responsibility for its region, MSRs need the ability to exchange information and share best practices and address access challenges with a global approach that is further explored in the Manual.

- **Lack of Cooperation.** There is a lack of common purpose among the different regional communities entrusted to ensure access to the Maritime Domain including fisheries control, customs, harbor police, coast guard, navies, maritime safety organizations, etc. A frequent lack of authority to act further complicates the problem. This may also lead to hesitancy to share information.

    Implication. Regional agencies often operate with insufficient information sharing and limited mutual support and thus have an incomplete awareness of the challenges. The

creation of a MSR could mitigate this problem. It should build confidence and facilitate cooperation among its members to ensure the exchange of relevant information. An enterprise approach could provide best practices from other MSRs.

- **Budget Challenges.** Some powers continue to reduce the number of military and law enforcement assets as the expense of building, maintaining and operating maritime forces, systems and infrastructure increases. This is in contrast to the sustained growth of sea borne trade and increased commercial shipbuilding that has doubled since 1990.

  Implication. There will be a reduced on-scene presence of dedicated maritime forces capable of patrolling regime areas of responsibility and protecting maritime commerce. This loss of capability may be offset by other more persistent interdomain capabilities such as cyber and space capabilities that will become increasingly important contributors to situational awareness. Additionally, the response could utilize police, coast guard or naval forces in whatever mix is deemed most efficient.

- **Need for Greater Agility.** As the world evolves towards a more multipolar and global geopolitical construct, greater agility will be required by nations to respond to uncertain challenges. Nations with an interest in ensuring access to the Maritime Commons must guard against losing the initiative when responding to access challenges.

  Implication. A proactive awareness function coupled with MSR political influence can prevent crises and avoid reactive enforcement. The potential destabilizing effect of these strategic trends and challenges in a globalized, multipolar world can be countered by agreements in accordance with internationally recognized laws among nations with common interests.

Problem Statement

From the above discussion it is clear that nations and organizations with maritime interests will be faced with ever-greater challenges to maritime access.

The operational challenge is thus: *How can nations or organizations better anticipate, deter, prevent, protect against, and respond to potentially increasing disruption or denial of access to the global common domains (maritime, air, space, and cyber) and ensure freedom of access within them?*

The Concepts' central idea, supporting principles, the MSR construct discussion and MSR solutions that follow describe a potential response to this problem.

V. **Central Idea: "A Global Enterprise Response to Regional MSR Challenges"**

The Central Idea of this concept is a dual approach to strengthen MSRs:

- **First, the creation of a Maritime Security Regime Enterprise as an entity that offers sustained support to encourage and facilitate collaboration between MSRs and improved ability to access information, best practices, and expertise from beyond their own regions to resolve access challenges to the Maritime Domain.**

- **The second, complementary approach of the concept builds and directly enhances MSRs, emphasizing collaboration in a global approach to regional challenges. It implements a program that provides procedures, principles and best practices to directly enhance MSR awareness, assessment and response capabilities.**

States, international and local organizations, national authorities and private companies who share a common objective; to ensure access to and freedom of maneuver within the Maritime Domain, may form or enhance current Maritime Security Regimes. They will do so in accordance with international law.

The nature of Maritime Domain access challenges is now global in scope and impact. Increasingly the complexity and uncertainty of each region of the Maritime Domain is compounded by the problems and opportunities of interdomain dependencies and inter-regional relationships.

The Enterprise. First, these complex challenges call for a global and agile organization that is designed to respond to regional challenges–an Enterprise whose components are available to MSR requests for support. Key to the Enterprise support and its coordination are the introduction of five new mutually supporting functions. These functions are external to the MSR and provide: (1) Net enabled collaboration of the MSRs, (2) MSR library of best practices, lessons learned, and procedures ,(3) Global Assessment to enhance MSR awareness (4) Shared expertise, and (5) Capacity building to promote MSR enhancement. *It is important to recognize that the Enterprise will not have a governance function and will not direct or restrict the regions MSR operation.*

The other portion of the Concept's dual approach is a more direct effort to sustain MSR enhancement supported by a global approach. MSRs are the primary building blocks of the concept. Underlying both approaches are MSR principles founded on member confidence and trust; focused on achieving individual and mutual benefit; and attuned to supporting maritime access.

MSR Functions. The primary functions required for a MSR to ensure access and freedom of maneuver and success are:

- **Awareness and Assessment.** MSRs should create a persistent regional awareness through a shared assessment capability to better meet the challenge of uncertainty of the complex Maritime Domain environment. MSR awareness and assessment must be steeped in the region's unique and complex culture and focused on challenges within and around the region. Their assessment activity and scope will vary to meet the range of MSR challenges. Those MSRs

operating in a more routine environment will operate at a lower tempo than those facing serious challenges. Their assessment products are based on a common MSR agenda, are sensitive to cultural awareness and national interests, and look to address mutual access challenges. Individual MSRs should also interact with other MSR awareness and assessment functions and interdomain experts either directly or through the Enterprise. Their assessment goal is to identify measures to prevent or minimize access denial challenges.

- **Response.** MSRs require stakeholder capabilities to respond or take actions when necessary to address maritime access challenges and opportunities. MSR responses will require a willingness to respond collectively and/or to rely on external stakeholder action. These stakeholders may not be regional MSR members. MSR responses may entail the full range of capabilities from national or federation support including combinations of direct enforcement action, as well as employing political pressure and influencing public opinion by narrative. They are designed to first prevent or deter crises while simultaneously developing the underlying will to employ maritime enforcement capabilities if needed. Backed by the required policy support, MSRs or stakeholders will, when necessary, enforce applicable international law. Each access challenge will be unique, requiring agile decision-making and flexible response often with inter-regional coordination and the utilization of interdomain capabilities.

VI. <u>Supporting Principles</u>

These principles amplify the Concept's central idea. They are the basis for successful MSRs and, when applied to Maritime Domain situations, facilitate problem resolution. These principles address Enterprise, MSR establishment, MSR sustained operation and MSR policy considerations. In many cases they can be applied to inter-regional and inter-domain relationships.

Supporting Principles

- **Generate Confidence among MSR Members**
- **Build MSR Partnerships**
- **Establish Individual Stakeholder and Mutual Benefit**
- **Each MSR is Unique and must be Agile and Make its Own Policy Decisions**
- **Enable Planning and Decision-Making in a Complex MSR Environment**
- **Monitor MSR Fatigue**
- **Support MSR Compliant Actors.**
- **Support a comprehensive legal framework**
- **Complex Challenges Require Persistent MSR Awareness and Assessments**

Gaps. The supporting principles are organized around four gaps as they were identified in a separate baseline assessment.[11]

---

[11] Multi National Experiment 7, Outcome 1 Baseline Assessment dated 31 March 2011. *"An improved ability to build and/or enhance maritime security regimes in order to ensure access to and freedom of action within the Maritime Global Commons Domain."*

- **Level of Institutionalization:** a lack of functional maritime security cooperation in crucial areas of the world contributes significantly to the current maritime security deficit.

- **Capability and Willingness:** a situation where the regional security regime does not have the capability or political will to address a specific problem.

- **Disputes and Legal Interpretations:** the clash of interests between coastal states who aim for increased influence and jurisdiction over maritime areas and maritime states who wish to maintain the status quo of maximum freedoms of navigation in accordance with the United Nations Convention on the Law of the Sea (UNCLOS).

- **Threats and Vulnerabilities:** there is a clear gap between present naval capabilities on one hand and the challenges in the Maritime Domain on the other. The increase in piracy, drug trafficking and terrorism at sea during the last couple of decades bears witness to that gap.

Principles. Application of these principles will help mitigate these gaps:

- **Generate Confidence Among MSR Members.** MSR activity is primarily collective not individual. The willingness of members, including commercial maritime organizations, to cooperate within the collective body of the MSR is directly related to their mutual confidence leading to trust in MSR ability to coalesce in the achievement of common goals. As highlighted in several MSR case studies, cooperation during a series of low intensity events will facilitate an increased willingness to pursue more complex issues. In successful MSR operations, collective responses and willingness to cooperate becomes an iterative process with mutual confidence and trust as a cornerstone.

The MSR must explore its range of confidence building activities and decisions that spring from and in turn generate additional trust. This may include: establishing shared agendas from the strategic or political level to the working level: identifying mutual benefit and common purpose or action for members and commercial users: developing and using common MSR procedures normally based in the realm of a common agenda: assessment of the complex maritime challenges: and supporting timely resolution of Maritime Domain access disputes and associated legal interpretations. This principle also applies to Enterprise operation and success.

Building trust and common approaches are essential for building effective partnerships. These require an iterative process with one following the other. As nations recognize that their common interests and common objectives in maintaining free trade are underpinned by ensured access to the Global Commons, they can begin to work together toward these common objectives, building confidence and leading to mutual trust. With increased confidence and mutual trust they can become committed and effective partners in maintaining global access.

- **Build MSR Partnerships.** Such partnerships must be tailored to secure the regions maritime resources and commercial needs with an appropriate level of security enforcement

capability. The overarching benefit of building improved partnerships is the regime stakeholders' inherent capability and willingness to make the necessary maritime responses on behalf of compliant members and users of the Maritime Domain. The partnership must include those attuned to the local region and utilize timely and persistent assessments to address maritime security issues before they expand into major problems. Timely responses will be vital.

For MSR partnerships to succeed, an adequate resource and capability commitment must be available and employed to meet non-complaint actor challenges. These partnerships may include other MSRs or individual nations.

These factors will help enable MSRs to endure.

- For an MSR to endure it should be joined by key regional states in forums appropriate for the region.

- Each MSR is unique and has its own challenges, culture, individual characteristics, and objectives. MSRs should adopt their own specific structure, procedures and approaches within the guidelines of the UNCLOS.

- Establishing a MSR is primarily a political endeavor. Successful MSRs result from long-term efforts based in diplomatic and economic agreement with military or law enforcement support, as needed.

- The MSR may also provide points of entry for members and supporting organizations to train, advise, and assist in the building of new capabilities. Confidence building activities with new members could establish an avenue to bring noncompliant actors into compliance.

- MSRs that are overly dependent on external international communities of interest for their long-term success may be at risk. It remains a MSR decision as to the best blend of required external capability support.

The goal is to establish increased long-term MSR capabilities that seek to build MSR cohesion while degrading the cohesion among noncompliant actors.

- **Establish Individual Stakeholder and Mutual Benefit.** For a MSR or the Enterprise to be viable there should be acknowledged individual (national), as well as mutual, benefit to improve Maritime Domain freedom of maneuver for participating members and organizations as well as private companies.

MSR stakeholders will normally first establish the individual political benefits of joining a MSR. Benefits they may consider include the assurance of maritime security, the attainment of comprehensive maritime information, and confidence in the MSRs' assessment and response ability.

- **Recognize Each MSR is Unique—It Must be Agile and Make Its Own Policy Decisions.** Two primary factors establish this uniqueness. First, there is a wide diversity of challenges in the evolving operating environment found in maritime regions of the world. Each is uniquely complex and marked with uncertainty where different cultures, viewpoints and interpretations exist. Second, there is wide variation in the capabilities of MSRs. Both factors call for MSRs to be established and then operate within disparate political and strategic contexts over time, addressing each situation on its own terms.

A MSR should employ an agile framework in response to this complex environment. It has to be agile in its assessment of the challenges as well as in its actions to protect and enforce regional maritime security. Agility in turn depends on confidence among the MSR members closest to the maritime access problem. An agile MSR should be able to transition from simply responding to an initial problem (reactive immature MSR) to a more permanent and stable framework (mature proactive MSR), which can maintain persistent awareness and address the root MSR problems regarding actions by noncompliant actors. The MSR, as it matures, should guard against the loss of agility.

- **Enable Planning and Decision-Making in a Complex MSR Environment.** MSR planning and decision-making must be designed to handle a wide variety of civilian governmental and private participant interests. An underlying challenge is the effective combination and interaction of these numerous partners with their cultural differences. This is further complicated by the existence of interdomain factors, a variety of inter-regional partners and dealing with other regimes facing threats of similar complexity. In the multitude of varying scenarios, MSR general planning considerations will include regional as well as global responses by the range of diplomatic, economic, law enforcement, and military considerations. Initial plans and decisions will often be countered and must then be adapted to meet new challenges that expand across regions and domains. To meet the potentially asymmetric nature of threat actions, MSR planning processes must be direct and adaptive to enable responsive decision-making.

MSR Planning and associated decision-making in a complex environment uses a comprehensive approach[12] that could include any or all of the following conditions/requirements:

- The long-range goal of the MSR is to have the capacity to respond to and convince noncompliant actors into compliance and if required, enforce compliance.

---

[12] Comprehensive approach. The collaborative employment of diplomatic, informational, military and economic power by civil government agencies, national and multinational military forces, international and intergovernmental organizations, nongovernmental organizations and other relevant actors in a coordinated, integrated and coherent manner in order to achieve unity of effort toward a common goal.

- Use multiple lines of approach to maritime access challenges including trying several ideas in iterative fashion instead of more lengthy and detailed deconstruction of complex problems that may not lend themselves to a single comprehensive approach.

- MSRs should identify the most suitable resources for resolving challenges with militaries normally act in a supporting role.

- Using all tools of the MSR's participants including informational (cyberspace), diplomatic, economic (including sanctions and embargoes), law enforcement and military action.

- Persistent assessment to match the adaptive, trial and error nature of complex environment solutions where problems are often obscure and difficult to define and even more difficult to resolve.

- Regional Maritime Domain access challenges are suited to on the scene assessment and local exploitation of opportunities by those who best know the culture and its problems.

- **Monitor MSR Fatigue.** An established MSR must be continually assessed for signs of MSR fatigue. Fatigue is a political symptom and may be demonstrated by an individual or combination of partners, each for their own reasons. Left untreated it could hinder MSR cohesion by the withdrawal of one or more MSR members.

- **Support MSR Compliant Actors.** The MSR must act in accordance with UNCLOS. Its central goal is freedom of access in the Maritime Domain, principally for actors complying with international norms and standards. Timely resolution of maritime regional disputes and legal interpretations are important. They also build confidence and partner trust. MSR legal shortfalls may include unclear or insufficient authorities and mechanisms to enforce the international and often national legal framework in exclusive economic zones (EEZ) and on the high seas. The MSR must have legitimacy, credibility, and be supported by the international community of interest.

- **Support a Comprehensive Legal Framework:** MSRs support a comprehensive legal framework using both national and international law complemented by an assertive application of the law sometimes referred to as "law in action"." The MSR must back its legal framework using well-organized cooperation and trust to achieve a shared agenda.

- **Conduct Persistent MSR Awareness and Assessments to Monitor Complex Challenges.** The complex and evolving challenges of the maritime regions in the global operational environment demand frequent monitoring and reassessment. What was true about a perceived problem yesterday may have changed and the political, economic, and military stance of the MSR must adapt to accommodate, or risk losing operational effectiveness.

- The Maritime Domain challenges are characterized by uncertainty, complexity, rapid change, and the increasing use of cyber and space domains by both compliant and noncompliant actors.

- The complex and possibly asymmetric nature of problems will challenge and surprise the MSRs, complicating their responses and actions if not prepared.

- Events may unfold continuously and branch in unforeseen directions, each influenced by the preceding, and each in turn shaping the next event.

- The MSR needs a proactive capability for flexibility and adaptation to a changing operational environment. It should be able to request additional support from another MSR or utilize the Enterprise.

- An essential element of the MSR is its dedication to reducing the uncertainly of the problem and the operating environment. In particular, viewing the situation from the noncompliant actor's frame of reference may provide important insights.

- In periods of little or no clear challenge or problems the MSR must not reduce its awareness or assessment efforts. Its continuity provides the regime with time to pursue confidence building activities and lead time to better respond to potential crises.

VII. <u>MSR Constructs</u>

This section will describe the requirements to establish MSRs, their functions, membership, and evolution to maturity. It also presents a conceptual model of the enterprise framework.

Elements of an MSR

Establishment of a MSR must address five elements.

- First, they require a specific common objective or interest as the reason for the establishment. In this case the common objective is related to maritime security challenges.

- Second, they require members. These members can be a combination of nations, international and nongovernmental organizations, and private companies.

- Third, the MSR requires a framework of rules and procedures, using UNCLOS and adherence to international law as overarching guidance.

- Fourth, it must possess the capabilities to respond as necessary to enforce compliance in a maritime region. In this context, it proposes gaining improved maritime situational awareness[13] through the persistent assessment of access challenges.

- Finally, there is a requirement for authority allocated to these MSRs by their members and also the acceptance of this authority by stakeholders and the international community of interest.

Figure 1 depicts the construct of a Maritime Security Regime. For convenience, all these regional organizations are called MSRs, however, some regions may choose other more informal or ad hoc organizational constructs.

MARITIME SECURITY REGIME			
Stakeholders		Leadership	
		Assessment Function	Response Function
Regime Member Nation	Regional Partner		
	Non Regional Partner		
Non Regime Member Nation	Regional or Non Regional Stakeholder		
Other Regime Inter-Regional Coordination			
Key Enabler: Interdomain Support *Maritime, Cyber, Air, Space, Land*			

Figure 1. MSR Stakeholders and Functions

MSR Functions

Figure 1 identifies types of stakeholders and functions of a MSR. The MSR's primary functions include providing improved maritime situational awareness, through persistent shared *awareness and assessment* and *response* to address noncompliant activity. Other functions include establishing a *framework for inter-regional coordination* between regimes and the ability to

---

[13] *Situation awareness* is viewed as "a state of knowledge," and *situation assessment* as "the processes" used to achieve that knowledge. Endsley, Mica R. "Theoretical Underpinning of Situation Awareness: A Critical Review." *Situation Awareness Analysis and Measurement.* Ed. Ensley, Mica R. and Garland, Daniel J. 2000, p 19. Endsley, Mica R. 2000). Page 19.

coordinate interdomain support activities, particularly in the cyber and space domains. The fifth function, *creating a framework of rules* (not depicted in the figure), serves at the foundation on which the other functions are based.

- Interested parties responding to an access challenge would form a leadership nucleus. This leadership nucleus would establish the "why´s and how's" of self-governance. To be a functional MSR, that is to be able to resolve the maritime access problem behind the creation of the regime, the MSR performs five functions, of which the first two are inherent. **MSR Shared Awareness and Persistent Assessment.** Awareness and assessment of the maritime noncompliant access challenges and defining the access denial implications to the region.

- **Response and Enforcement Capabilities.** A tailored response backed by a capability for enforcement with a clearly defined authority to act is a vital addition to the "tool box" for MSR responses. Capabilities vary by MSR but range from MSR joint response to the more likely case of a key member or a few members responding with the needed capability. Response can be internal or external to the MSR.

- **Framework for Inter-Regional Coordination.** There is a requirement for process and procedures for the collaborative efforts between two or more MSRs.

- **Coordinate Interdomain Support Activities.** Achieving access to the Maritime Domain is increasingly part of larger and more comprehensive issue: it is interdependent with and relies on access to other domains of the Global Commons, such as air, space and cyberspace. Actions to ensure access in the Maritime Domain must account for these interdomain relationships.

- **Creating a Framework of Rules.** A MSR requires a framework of rules and procedures, using UNCLOS and adherence to international law as overarching guidance that must be agreed upon and adhered to by the members.

MSR Membership

MSR stakeholders come from the maritime community of interest, nations, organizations, and private companies. They come together to create or enhance a MSR based on a common interest around a maritime security challenge in a specific geographical region[14]. As depicted in Figure 1 above, there are generally three types of members. The first are *regime member nations* that are regional partners. Second are regime members who are *nonregional partners*. Nonregional partners are interested parties that do not reside in the geographical location of the maritime

---

[14] Krasner, 1983

problem area. Third are *nonregime member nations* who can be either regional or nonregional stakeholders with an interest in the regional problem. A MSR could either be initiated or enhanced by the regional members or it could emanate from interested external states or organizations that foresee mutual benefits, such as external nations coming together to counter piracy in the waters adjacent to Somalia. The MSR could be formed by a combination of both regional and nonregional entities.

Most actors and organizations have an interest in ensuring access to the Maritime Domain according to established rules. Based on their degree of interest, they can be categorized in three groups:

1. Actors interested in ensuring access and freedom of action according to established rules,

2. Actors interested in ensuring access and freedom of action thereby challenging established rules, and

3. Actors with no interest in ensuring access and freedom of action or limiting access and freedom of action.

This paper addresses MSRs that support group (1) as well as providing suggestions for responding to noncompliant actors in groups (2) and (3).

MSR Evolution to Maturity Over Time

MSR actions will evolve over time to meet new common agendas and challenges as well as to include new capabilities. The example depicted in Figure 2 illustrates how, for a given region, the functional entities of a MSR could evolve from completely external towards more internal to the region.
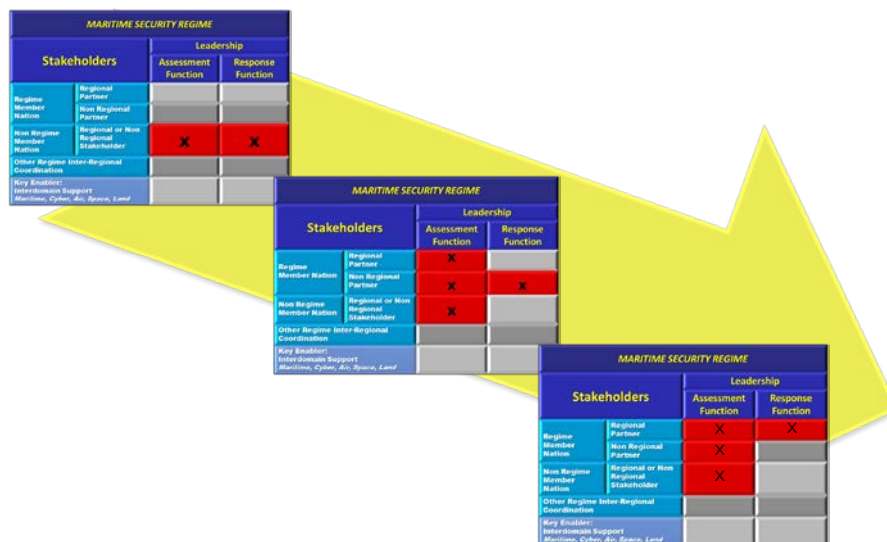
Figure 2. MSR Evolution

In this case a MSR could be started with the contribution of nonregime member nations who are regional or nonregional stakeholders. These external stakeholders can provide awareness and assessment and capabilities that enable initial response. A second maturation step could expand to include the contribution of regional and nonregional partners who are regime member nations. All partners and stakeholders could contribute to assessment and with a strong contribution of nonregional partners with response capabilities. The desired mature MSR end state could be regional MSR members gaining the ability to share assessment results from multiple sources (MSR members, nonregional members, and non-MSR members) and regional MSR partner developing their own response capacity. An initial observation based on a review of MSR case studies is that long-term MSR stability, reducing the risk of external actor fatigue, and overall success, are better achieved when regional regime partners take the lead in MSR response. That being the case, a maturing MSR should gravitate towards shared awareness and a diminishing external response capability requirement. In any case, it remains the decision of each MSR as to the degree with which it relies on external actors.

Conceptual Model of the Enterprise Framework

Figure 3 is a pictorial view of the Enterprise Construct.

- The outer ring depicts the overarching context of global commons access and the interrelation of the domains.

- The inner circle represents the inter-regional relationships of two MSRs (MSR A and MSR B) shown linked by a common agenda where two inner most circles representing MSRs overlap. This is the area of collaboration that can be supported by the Enterprise.
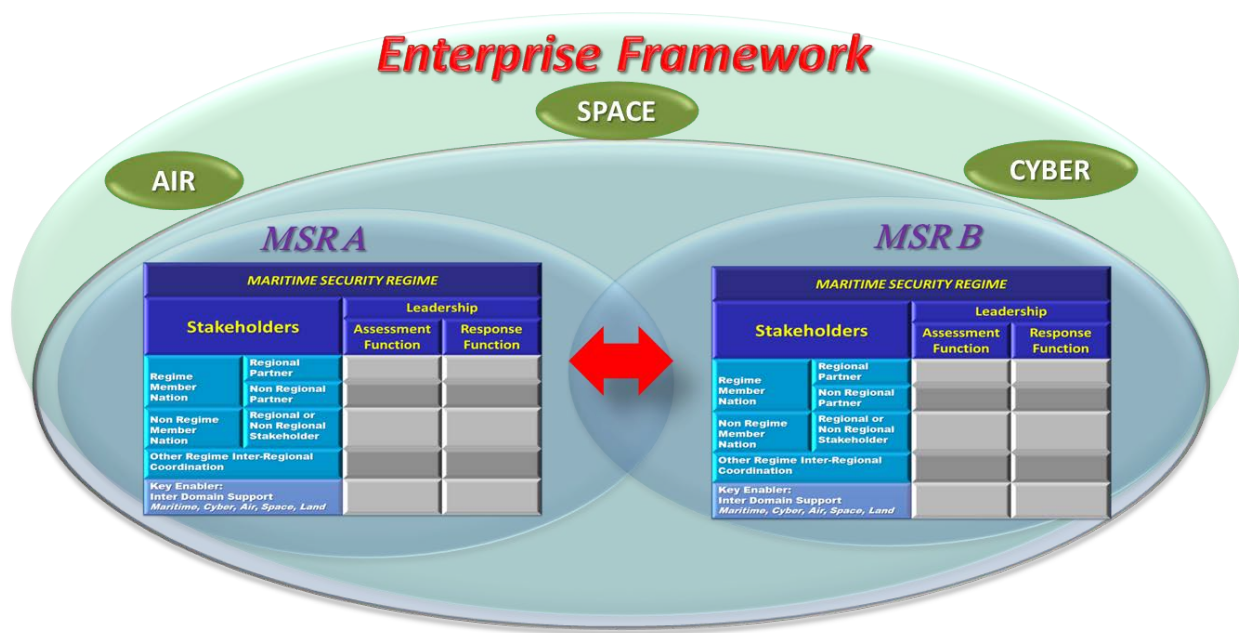

Figure 3. Enterprise Framework

VIII. Solution Menu for Enterprise and MSRs

This section presents a group of solutions that support the development, enhancement and sustainment of the Enterprise and MSRs. Solutions are based primarily on the central idea and the supporting principles. Each solution is designed to improve Enterprise or MSR capabilities, focusing specifically on persistent shared awareness and assessment capabilities and tailored MSR response capabilities including a viable enforcement capability.

Solutions are grouped into the following categories from general or supportive solutions to more specific MSR solutions: Underlying Enterprise and MSR Solutions, Enterprise Solution, Regional MSR Establishment Solutions, and MSR Enhancement Solutions. Because regional MSRs are normally more knowledgeable regarding their access challenges, this section is presented as a menu of solutions that a MSR can select from and adapt to their specific needs.

Underlying Enterprise and MSR Solutions

These solutions, which apply to both the Enterprise and to MSRs, are based on two supporting principles.

- **Generate Confidence among MSR Members** Building confidence and cohesion is best achieved in an iterative process of small steps that gain momentum with each positive exchange and favorable interaction. MSR collective action and confidence may be viewed in three MSR activities that are increasingly challenging. First is information exchange supported by a communications network of operations; second, collective persistent assessment; and finally, the interaction and collective responses and action of multiple MSRs conducting inter-regime and interdomain operations.

  - **Information Exchange.** The 1st level of cohesion and confidence in MSR operations concerns regime communication and access to maritime information. It is a basic requirement for enabling a cohesive culture within a regime. Technical communication solutions are not the issue. They are readily available and widely applied in the current Maritime Domain but are not sufficient by themselves to establish MSR success and action. In fact regime member confidence at this level of cohesion is a valuable building block toward achieving global awareness. Only with this confidence will MSR members be willing to share more important and timely information. -

  - **Collective Persistent Assessment.** MSR persistent assessment is a critical activity to building awareness and understanding of the MSR access challenges and responses in a complex environment. Identifying and forming common agendas may often enhance it. In the complex problem environment where persistent cooperative assessment is vital, MSR cooperation and trust are essential. Collectively assessing complicated MSR challenges successfully will, in itself, build confidence. Finally confidence among those seeking better access in the Maritime Domain will directly enhance the MSR ability to reduce uncertainty and deal with setbacks as well as successes.

  - **Inter-regime and Interdomain Operations.** The third and most ambitious MSR activity layer is inter-regional and interdomain MSR cooperation, including the networking of two or more regimes to resolve a common problem. The Enterprise should specifically address supporting MSRs as they pursue limited inter-region and interdomain common agendas and challenges.

Confidence and trust is central to cohesive MSR action and success. Confidence can be enhanced through application of many of the other Concept principles and in particular the next one, the identification of mutual benefit.

- **Establish Individual Stakeholder and Mutual Benefit.** For a MSR or the Enterprise to be viable there should be acknowledged national and mutual benefit concerning the maintenance of Maritime Domain freedom of maneuver among the participating states and organizations. Without establishment of mutual benefit, regime motivation for action and cooperation will

flounder and resource commitment will fade. Mutual benefit among MSR members may be achieved by building an acknowledged common agenda and objectives. Acknowledged mutual benefit is best achieved through "win-win" or compromise negotiation.

Benefits may be at different levels and may mean a different outcome to each actor. For example, actors guaranteeing canal passage may be seeking different benefits than shipping companies involved in secure canal passage. States external to the region may join a MSR because of clear mutual benefit to ensuring access through vital straits[15] and sea-lanes in the region while the benefit to regional actors may be seen in increased commerce within the region. Mutual benefits are also present when mutual threats or challenges are identified and are in turn linked to common interests.

Enterprise Solution – Global Support for MSRs

MSRs are the primary building block to insure access in the Maritime Domain through awareness, assessment and the capability to elicit timely, effective responses.

While a regional approach to MSR problems is sound, it is improved by recognizing that the nature of maritime access challenges are increasingly global in scope and impact. This calls for a global and agile structure that is designed to support regional challenges–an Enterprise. As described under the central idea, its five functions , available to MSR requests for support, include : (1) Net enabled collaboration of the MSRs, (2) MSR library of best practices, lessons learned, and procedures ,(3) Global Assessment to enhance MSR awareness (4) Shared expertise, and (5) Capacity building to promote MSR enhancement.

It is important to recognize that the Enterprise would not have a governance function and would not direct or restrict the regions MSR operation.

Note that it is still a core MSR responsibility to assess and respond to challenges, but MSR success is enhanced by Enterprise functions and with support from the various Enterprise groups depicted in Figure 4 and described below.

---

[15] Straits Used for International Navigation: Straits that are used for international navigation between one part of the high seas or exclusive economic zone and another part of the high seas or exclusive economic zone. The regimes of transit and innocent passage apply depending on the nature of the strait. See UNCLOS PART III articles 34-45.
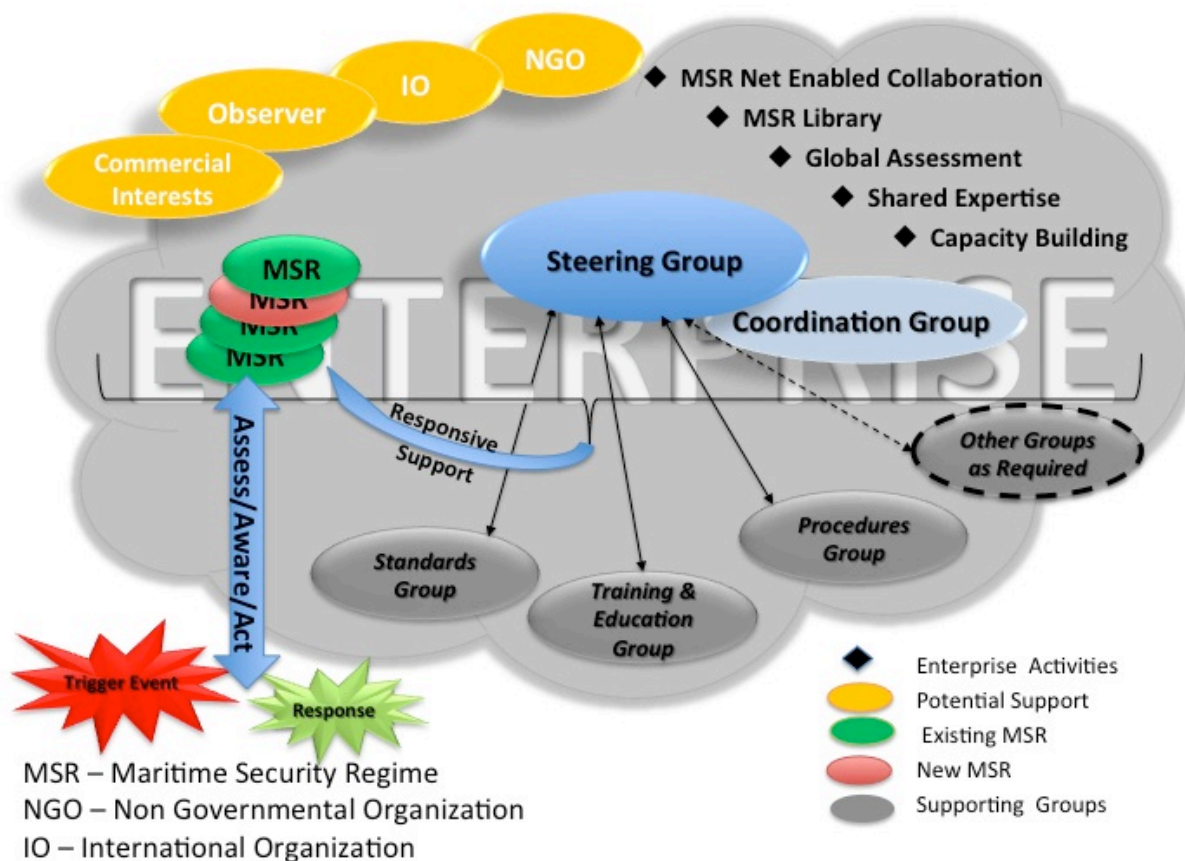
Figure 4. Enterprise Functions and Activities

- **The Enterprise Steering Group.** This group is led by a Chairman and is composed of members whose roles are to provide guidance and make decisions on strategy and planning on behalf of their respective governments or organizations with which they will liaise as necessary. They represent and guide the Enterprise functions and the supporting components including the Enterprise Coordination Group and several subgroups depicted above. The Enterprise Steering Group also leads the Enterprise MSR Conferences.

The Enterprise Conferences are periodic face-to-face meetings of senior MSR representatives to explore regional MSR issues and challenges and to exchange information. Participants include the Steering Group and its Chairman and supporting groups in the field of operations, technical requirements, legal questions, or other special areas of concern as required. Conference objectives and roles may include:

- Guide MSR Conference detailed planning, and execution.
- Discuss "hot topics" during the Conference and in the Net Enabled Collaboration

29

environment.
- Develop and articulate appropriate and acceptable Enterprise and Subgroup names.[16]
- Support and enable maritime capacity building activities.
- Provide a networking forum for the MSRs.
- Develop MSR advocacy policy in order to generate political will, improve MSR partnering and mentoring, and increased membership.
- Develop suggested Enterprise member conflict resolution processes.
- Guide the Enterprise library of best practices (lessons learned), MSR concept and MSR Manual publication updates.
- Ensure support for MSR education and training.
- Act as an advocate for consensus building for new laws or regulations concerning new access challenges.
- Guide MSR assessment support including early warning trip wire functions.

- **The Enterprise Coordination Group.** This group supports Conference preparation and the meetings as well as maintaining the Enterprise net enabled collaboration and knowledge repository. This Group should be organized by the Enterprise Steering Group according to their requirements.

Primary roles for the Enterprise Coordination Group include:

- Supporting the Enterprise Steering Group and its Chairman to facilitate networking of the MSRs including net enabled collaboration. Additionally:
  - Maintain the Enterprise library of best practices (lessons learned) including MSR concept and MSR Manual publications and other pertinent documents.
  - Support education and training of MSRs.
  - Support maritime capacity building activities.

- Provide MSR Conference detailed planning, and execution:
  - Develop Conference agenda items and design the Conference sessions for the Chairman.
  - Be the conduit for "hot topics" to be discussed in the Conference and in the Enterprise Net Enabled Collaboration.

- Future roles could include:
  - Support MSR assessments including early warning "trip wire" functions.
  - Be alert to and report MSR crisis events and access challenges.

---

[16] The term Enterprise is descriptive term and do not prescribe a naming convention. MSRs themselves should name it during initial meetings.

- Elevate immediate action items to the appropriate Enterprise Steering Group leadership.
- Maintain awareness and knowledge about related inter-regional and interdomain activities.
- Support Memorandum Of Understanding development in anticipation of future action.

- **Other Participants.** Other possible participants in the enterprise may include International Maritime Organizations (IMO), observers, nongovernmental organizations and others with a common interest. Commercial interest, such as shipping companies or port operators, are potential stakeholders, but may only become interested when they realize the potential financial impact of access challenges

As depicted on the left side of Figure 4, the Enterprise responds to and supports the MSRs. The MSRs and the Enterprise Coordination Group are all interconnected and able to interact in a timely manner with each other as well as other interdomain sources. MSRs can generate queries for information, raise issues, or alert the Enterprise to access challenges or events. MSRs assess activity within their region, focusing on trigger events[17], and respond as necessary.

Regional MSR Establishment Solutions

The MSR standup or enhancement solutions focus on the two general capabilities of the Concept central idea, persistent awareness and assessment and decision and response capability. Along with the Enterprise proposal these solutions form the dual approach of the central idea.

MSRs are shaped by a wide variation in their capabilities and regional challenges. When nations decide to establish a MSR they may be operating within evolving political and strategic contexts. As a result they will address each unique situation on its own terms. In some cases the maritime access challenge may be minor and of short duration, perhaps warranting a more informal and temporary MSR organization. In other cases major challenges may require a more enduring MSR.

To establish the MSR, members may elect to invite a wider community of interest to join the MSR and to participate in the development of a common agenda, a defined level of ambition, and identification of challenges and available capabilities.

---

[17] A triggering event is described as a persistent access challenge event in a given region that actors coalesce around and causes the formation of a MSR. The term was first used during Multinational Experiment 5: Cooperative Implementation Planning, Management and Evaluation Concept, October, 2008.

Many of the aspects of the solutions presented for a single MSR apply to the inter-regional and interdomain cases (particularly cyberspace). Adjacent or issue related regions and regimes may be sources of common access challenges.

MSR Enhancement Solutions

The final group of solutions addresses MSR enhancement. Today many MSRs already exist, so most work will be focused on enhancing existing MSRs to resolve the gaps in their capabilities. The solutions presented in this section are best practices and ideas that are explored in more detail in the MSR Manual. They are grouped in three organizational or functional areas: MSR Leadership, Persistent Assessment and Awareness, and MSR Decision and Response. A common theme of each is to take advantage of the Enterprise and other sources to employ a global approach to the regional challenges.

- **MSR Leadership.** The type of leadership chosen for a MSR will vary across the spectrum of the access challenge.
If the access challenge is at the high end of the scale (for example, major maritime threats are present and significant regional vulnerabilities exist), and is one the MSR would persistently address, the MSR leadership could consist of an appointed leader and a full time staff. If it is at the low end of the impact scale (for example, low threat with low vulnerability assets), the MSR might be more federated or simplified. For example, its leadership tasks could be executed separately, guided by a Chairman coordinating more formal guidance.

MSR operations and functions are not stagnant, they change over time. When existing MSR guidance or roles are overcome by events or capabilities then the MSR leadership should interact with its national leaders to adjust the MSR vision and objectives.

- **Persistent Assessment and Awareness Function.** Assessment and awareness are iterative aspects of the same process. The objective of this function goes beyond enhancing MSR situational awareness regarding Maritime Domain access issues. MSR assessment and awareness functions are more than just information and knowledge activities that narrowly focus on problems or noncompliant actors in the region. These functions must also lead to an appropriate MSR response often with global aspects that resolves the problem. MSRs maintain awareness and knowledge about the region, including maritime shipping location and tracks, appropriate related inter-region and interdomain activities, and lessons learned.

    - **Importance of Culture and Region Uniqueness.** Assessment products should be sensitive to cultural awareness, as well as national interests, and be focused on addressing access challenges. The assessment goal is to make recommendations to prevent or minimize access denial challenges.

    - **MSR Assessment Approach.** Because assessment is often an early process in MSR activity, the approach used is particularly important. MSR case studies highlight that

the assessment approach must build confidence and trust through a series of small steps. Examples of successful MSR approaches gleaned from MSR case studies include:

- Establish a mutual agreed common goal
- Structure activities divided into clear progressive steps
- Recognize that success lead to more success
- Establish continued development procedures
- Develop and maintain the routines
- Keep the operator in focus
- Meet face-to-face.
- Implemented technology after the cooperation has been established and trust is already growing–first we work together to build trust and then we begin to share and use common technology
- Use existing systems in a distributed/federated way
- Determine mutual benefit and how each partner contributes to that.

- **Exchanging Information.** Few MSR issues approach the importance of this problem. The MSR members may exchange MSR assessment results that match established MSR agendas among its individual MSR members. Exchanges would be conducted within the constraints of national or organization requirements. This requires information sharing capability and is enhanced by interoperable systems. With this information exchange, a common MSR situational picture can be developed. Less capable regime members may initially require support in their information collection and dissemination efforts. Based on shared awareness, the MSR members can agree on possible responses and allocate capabilities for achieving solutions, including the identification of potential actors and assets required.

- **Additional Information Requirement.** MSR internal assessments may also lead to the identification of additional information requirements. The MSR can interact directly with other MSRs or with the Enterprise for information support. If requested the Enterprise and the Enterprise Coordination Group can assist by identifying other activities that can contribute to resolving MSR information gaps.

  - **Inter-region Awareness.** The inter-regional cooperation between MSRs should include the exchange of assessment results. As within a single MSR, information sharing capability and interoperable systems between MSRs will aid this effort. With this information exchange a more complete common situational picture and assessment can be developed.

  - **Inter-region and Interdomain Assessment.** MSR awareness and assessment functions often include both inter-regional and interdomain aspects. As described

in the principle concerning planning and decision-making in complex environments, an underlying challenge is the effective combination and interaction of numerous partners of cultural differences. This is further complicated by the existence of interdomain factors, a variety of inter-regional partners and dealing with other regimes facing threats of similar complexity. The Enterprise can provide an important supporting role in this area. It is further explored in the MSR Manual.

- **Anticipating Access Challenges.** MSR assessment and awareness should result in products that include implications and insights regarding MSR decisions that best reflect the members' interests and meet the challenges of the access problem. Assessment can act as a trip wire, allowing timely response to prevent or at least reduce the duration or effect of an impending access challenge.

- **MSR Decision and Response Function.** As each region has its own peculiarities and challenges, MSRs should develop and adopt their own specific procedures for decision and response. To achieve maritime security, the regions require the capacity to respond and convince noncompliant actors to comply or if necessary, enforce compliance.

Often key stakeholder capabilities will be needed to respond to maritime access challenges and opportunities. MSR responses will depend on a willingness of its stakeholders. Some stakeholders may not be regional MSR members. Responses may entail the full range of capabilities from national or federation support including combinations of direct enforcement action, indirect approaches (i.e. port state control), as well as political pressure and influencing public opinion by narrative to first prevent or deter crises while simultaneously developing the underlying will to employ maritime enforcement capabilities if needed. Backed by the required policy support, MSRs or other stakeholders will, when necessary, enforce applicable international law. Each access challenge will be unique, requiring agile decision-making and flexible response often with inter-regional coordination and the utilization of interdomain capabilities.

Specific MSR response activities could include these.

- **Enterprise Support.** MSR decision bodies may use the supporting Enterprise including the Enterprise Coordination Group, lessons learned and best practices based on the studies of other successful MSRs.

- **MSR Response Participation.** The MSR should invite communities of interest to develop a common response approach within the MSR as well as inter-region and interdomain responses when appropriate. This approach consists of an agreed upon common agenda, a well-defined proactive level of ambition and the identification of gaps and available stakeholder capabilities as well as the definition of specific rules and procedures to be acted upon.

- **Categorize Maritime Domain Challenges.** Distinguishing access challenges in temporary or long-term categories may be helpful. For more limited and short-term challenges, a simple organization may be sufficient with coordinated action supported by standing procedures. For longer term or more difficult challenges that are evolving, the next step might be to identify additional concerned actors through a stakeholder analysis. In this case short-term activities might mature into long-term security cooperation.

- **Flexible Lines of Approach.** The MSR should consider flexibly pursuing multiple lines of approach to address large maritime access challenges vice attempting time consuming analysis and detailed deconstruction of access problems.

- **MSR Resources.** MSRs should identify the most suitable resources for resolving challenges. They should consider all tools available to the MSR including the Enterprise support, interdomain capabilities (especially space and cyberspace), as well as all available diplomatic, information, military, and economic support. Based on common inter-regional and interdomain awareness, the MSR members can then agree on common issues and then allocate resources for achieving the objectives.

- **Interdomain Capabilities.** MSR may require interdomain capabilities to respond to and resolve challenges identified. There is great need for MSRs to utilize interdomain capabilities for information exchange and awareness. Additionally, assets from air and space domains are required for surveillance and communication.

- **Mitigation of Limited Resources.** Maritime resources may be limited during an access challenge. There may be reduced on-scene presence of dedicated maritime forces capable of patrolling regime areas of responsibility and protecting maritime commerce. Persistent space and cyber systems that are part of the interdomain and have become an increasingly important contributor to situational awareness may mitigate this. When action is required, a rapid maritime response capability will still be needed. The response could utilize police, coast guard or naval forces in whatever mix is deemed most efficient and effective. Interdomain enforcement solutions should be considered once the enabling technologies are developed.

- **MSR Agility.** Each region and MSR has its own peculiarities, challenges and objectives, and may develop its own specific procedures and frameworks. In response to the complex environment a MSR should employ an agile framework that can quickly adjust to circumstances. To respond to regional maritime security and regional access challenges it has to be agile in its assessment of the challenges as well as in its actions. Persistent awareness, aided where possible by the Enterprise, supports agility. It should not be overly centralized in decision-making, but rely on distributed and on-scene assessment and awareness of the challenges of noncompliant

actors that are also increasingly operating across all domains and multiple regions of the Maritime Domain. Assessment should also take advantage of other MSR knowledge and expertise through inter-regional cooperation. As the MSR matures over time it must continue to guard against loss of agility.

IX. Implications of Adopting the Concept

- The implications and capabilities required to implement the Concepts' dual approach primarily concern the Enterprise proposal because institutionalizing enhanced MSR procedures and best practice products depend significantly on Enterprise Support. There may be an increase in the number of new MSRs generated, in part, by Enterprise activity.

- MSR requests for information may initially burden the Enterprise organization.

- Over time, successful implementation of the Enterprise may lead to a stronger mandate for International Maritime Organization engagement. Alternatively, it may lead to the UN Convention on the Law of the Sea seeking a mandate for a new enterprise, concerned with enforcing security on the high seas.

- The Concept should be a living document. The continued exploration,analysis and evolution of the Concept and its Supporting Principles rest heavily on the presence of Enterprise activities and support.

X. Risks of not Adopting the Concept

The greatest risk to the success of MSRs would occur if the Enterprise is not formed and for the MSRs to then continue to operate as they always have, while the challenges continue to increase as noncompliant actors continue to improve their own capabilities.

These are among the more important risks faced by MSRs.

- Because engagement with the Enterprise is a voluntary endeavor, the MSR members may fail to participate sufficiently to make any significant improvement in maritime access.

- MSR members fail to establish creditability in the region because members lack confidence and trust in each other and do not engage the Enterprise or other MSRs adequately.

- MSR members may fail to adequately share information to assess regional access challenges in the complex environment or may fail to assess its implications leading to costly failure.

36

- When confronting access challenges in the region, MSR members may not seek Enterprise assistance to better obtain sufficient maritime capability to create a creditable response capability.

- Failure to establish the Enterprise Steering and Coordination Groups sufficiently may handicap MSRs coordination and limit their overall effectiveness.

- If the concept's emphasis on inter-regional MSR and interdomain coordination is not followed, MSRs may not be able to adequately meet growing global access challenges.

- Members may hesitate to form or enhance their MSR because they are not fully aware of growing maritime access challenges and dangers and may be unaware of the Enterprise resources available to support them.

- Members not using an Enterprise may hesitate to form or enhance their MSR because they are not fully aware of growing maritime access challenges and dangers due to lack of knowledge of growing threats originating from outside their own region throughout the supply chain.

XI. **Outlook**

All nations share a common interest in ensuring access to the Maritime Domain. The dual approach of a Maritime Security Regime Enterprise and enhanced MSR collaboration in a global approach offers the best opportunity to meet the Maritime Domain access challenges of the future. The Enterprise and MSR solutions presented in this Concept, if adopted, will improve the ability for actors to build or enhance maritime security and ensure access to and freedom of action within the Maritime Global Commons.

With Enterprise support, the MSR functions of inter-regional collaboration and interdomain interaction become feasible in addressing maritime security challenges. Additionally, by supporting an educational program, the Enterprise enables the training effort that provides procedures, principles, and best practices that support MSRs success.

This Concept is only a beginning but it provides a viable path to the future, particularly if the Enterprise is successfully established. The step following Enterprise formation could be the promotion of an international organization such as the United Nations/International Maritime Organization to provide leadership and constructive diplomacy to enhance effective security in the Maritime Domain of the Global Commons.